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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,163	06/02/2001	Steven Olson	C01-010	3061

23459 7590 12/01/2003

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EXAMINER

ROSWELL, MICHAEL

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,163

Applicant(s)

OLSON ET AL.

Examiner

Michael Roswell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: erroneously spelled "proessor" in invention title, three modes of operation are disclosed (pages 3-4), with only two numbered points.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 10, 12, 14-18, 20-21, 23-25, 30-31, and 33-34 rejected under 35 U.S.C. 102(b) as being anticipated by Jain et al (U.S. Patent No. 5,745,126).

3. In regards to claim 1, Jain et al disclose a machine vision system having a plurality of vision processors (Figure 15 and Column 31, Lines 36-37) and at least one user interface (Figure 4). A method for instructing the interface in communication with one processor to communicate with a second processor is given (Column 31, Lines 66-67 and Column 32, Lines 1-2). A link function (Column 31, Lines 55-57) establishes communication between a vision processor and the user interface and can be activated

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to issue instructions to establish communication with another vision processor (Column 32, Lines 3-9).

4. In regards to claims 2-3, Jain et al activate a vision processor control (Fig. 4 and Column 22, Lines 6-7) similar to claim 2, and allow for a user to click (Column 36, Lines 40-43) on a graphical representation of the control (Fig. 4).

5. In regards to claim 4, Jain et al show a graphical representation of a vision processor as a text string (Fig. 4). It is inherent in the art that text strings can be modified to a number of various styles, for example, bold type, italics, underline, strike-thru, etc.

6. In regards to claims 5-7, Jain et al describe the providing of an activation signal to the control, and how the signal is initiated by the user (Column 22, Lines 1-2), where the "user commands" initiate the signal, which is treated as "queries to the system". User interaction is through the "interactive video interface" (Column 22, Line 4).

7. In regards to claims 10 and 12, Jain et al disclose how the activation signal is initiated by an external event and a change in state of a sensor (Column 26, Lines 53-55), where the external event is the movement of an object in the field of vision, and the change in state of the sensor is its "tracking" ability. The activation of the control is done by the "camera hand-off" (Column 8, Lines 2-5).

8. In regards to claim 11, Jain et al allow for the above external event to be an industrial process event (Column 7, Lines 42-49) where the viewer is likened to a "broadcast video director" and the industrial process event is that director's choice to initiate the activation signal.

9. In regards to claim 13, Jain et al disclose a method for initiating the activation signal by programmatic decision (Column 17, Lines 20-23), where "the programmed reasoning system" does the initiating.

10. In regards to claim 14, Jain et al have been shown to use an external event to initiate an activation signal, and the user is able to activate another vision processor (Column 22, Lines 6-7).

11. In regards to claim 15, the link function of Jain et al is included in the described execution sequence (Column 31, Lines 48-67) of "master-slave information exchange" (Column 31, Line 46).

12. In regards to claims 16-18, Jain et al show the termination communication to a first vision processor before communication is established with a second in the asynchronous processing of data (Column 31, Lines 66-67 and Column 32, Lines 1-2). Jain et al also describe a dynamic, continually updated display of a remote vision processor connected to the user interface (Column 32, Lines 52-58).

13. In regards to claim 20, Jain et al disclose a machine vision system having a plurality of vision processors (Figure 15 and Column 31, Lines 36-37) and at least one user interface (Figure 4). A method for instructing the interface in communication with one processor to communicate with a second processor is given (Column 31, Lines 66-67 and Column 32, Lines 1-2). Jain et al also provide a graphical representation included in the user interface (Fig. 4) adapted to initiate an activation signal that instructs the interface to establish communication with another vision processor (Column 22, Lines 1-2).

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14. In regards to claims 23-24, Jain et al activate a vision processor control (Fig. 4 and Column 22, Lines 6-7) similar to claim 2, and allow for a user to click (Column 36, Lines 40-43) on a graphical representation of the control (Fig. 4).

15. In regards to claim 25, Jain et al show a graphical representation of a vision processor as a text string (Fig. 4). It is inherent in the art that text strings can be modified to a number of various styles, for example, bold type, italics, underline, strike-thru, etc.

16. In regards to claim 30, Jain et al disclose a machine vision system having a plurality of vision processors (Figure 15 and Column 31, Lines 36-37) and at least one user interface (Figure 4). Jain et al also provide a graphical representation included in the user interface (Fig. 4) adapted to initiate an activation signal that instructs the interface to establish communication with another vision processor (Column 22, Lines 1-2). The system is shown to be in communication with a first vision processor (Column 31, Lines 42-43).

17. In regards to claim 33, Jain et al allow for a user to click (Column 36, Lines 40-43) on a graphical representation (Fig. 4) adapted to respond to user action that instructs the user interface to establish communication with a second vision processor.

18. In regards to claim 34, Jain et al show a graphical representation of a vision processor as a text string (Fig. 4). It is inherent in the art that text strings can be modified to a number of various styles, for example, bold type, italics, underline, strike-thru, etc.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 8-9, 19, 21-22, 26-29, and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jain et al and Blowers et al (U.S. Patent No. 6,298,474).

21. In regards to claims 8 and 9, Jain et al have been shown to describe a machine vision system in communication with a vision processor having a method for establishing communication with a second vision processor, a link function that activates a vision processor control, and an activation signal for such a control that is initiated by a user via the user interface.

22. Jain et al do not teach the inclusion of a check box or a radio button into the above user interface.

23. Blowers et al do teach the inclusion of a check box or a radio button into the user interface of a machine vision system (Figure 8).

24. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the teachings of Jain et al to include those of Blowers et al to obtain the method described by Jain et al above that includes a check box or radio button in its user interface.

25. Motivation for such a combination is given by Blowers et al, who state, "the method further includes the step of displaying the graphical representations of possible

hardware and machine vision tasks. Then, the method includes receiving commands from a user to select desired hardware operating parameters corresponding to desired hardware and machine vision graphical representation and its associated first control program corresponding to a desired machine vision task" (Column 3, Lines 26-33).

Further motivation for such a combination is given by Blowers et al' Fig. 8, which depicts a machine vision user interface with a check box. It is well-known in the art that there are many objects for the selection of items in a user interface, such as radio buttons, check boxes, list boxes, etc. The examiner takes OFFICIAL NOTICE of these teachings as reference material.

26. In regards to claim 19, Jain et al have been shown to describe a machine vision system in communication with a vision processor having a method for establishing communication with a second vision processor.

27. Jain et al do not allow for a user to configure the vision processor using the user interface.

28. Blowers et al do teach such user configuration, by way of an image digitizer/frame grabber (Column 7, Line 44) and "custom controls for image processing" (Column 8, Lines 10-11).

29. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the teachings of Jain et al with those of Blowers et al to obtain a machine vision system in communication with a vision processor having a

method for establishing communication with a second vision processor that allows a user to configure the vision processor using the user interface.

30. Motivation for such a combination is given by Blowers et al, who state the inclusion of such configuration: "there is illustrated schematically a machine vision system generally indicated at **20** generally of the type which can be supported by the method and system of the present invention. The machine vision system **20** typically includes an image digitizer/framer grabber **22**" (Column 7, Lines 40-44).

31. In regards to claims 21-22 and 31-32, Jain et al has been shown to teach a machine vision system having a plurality of vision processors (Figure 15 and Column 31, Lines 36-37) and at least one user interface (Figure 4). A method for instructing the interface in communication with one processor to communicate with a second processor is given (Column 31, Lines 66-67 and Column 32, Lines 1-2). Jain et al also provide a graphical representation included in the user interface (Fig. 4) adapted to initiate an activation signal that instructs the interface to establish communication with another vision processor (Column 22, Lines 1-2).

32. Jain et al do not teach a system where the plurality of vision processors and user interface are connected via a network, or where the network supports TCP/IP network protocol.

33. Blowers et al do teach the use of a network for vision processor/user interface communication (Column 9, Lines 26-28), where the network communicates using TCP/IP protocol (Column 6, Lines 43-45).

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34. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the teachings of Jain et al with those of Blowers et al to obtain the machine vision system described above by Jain et al that communicates over a network using TCP/IP network protocol.

35. Motivation for such a combination is given by Blowers et al, who state the inclusion of such configuration: "there is illustrated schematically a machine vision system generally indicated at **20** generally of the type which can be supported by the method and system of the present invention" (Column 7, Lines 40-43).

36. In regards to claims 26-29, Jain et al have been shown to teach a user interface for a machine vision system having a plurality of vision processors, a graphical representation responding to a user action composed of an underlined text string, and an iconic graphical representation.

37. Jain et al do not teach the incorporation of a spreadsheet into the user interface of such a machine vision system.

38. Blowers et al do teach the inclusion of a spreadsheet into the above, as shown in Fig. 4.

39. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the teachings of Jain et al with those of Blowers et al to obtain a user interface for a machine vision system having a plurality of vision processors, a graphical representation responding to a user action composed of an

underlined text string, and an iconic graphical representation incorporated into a spreadsheet.

40. Motivation for such a combination is given by Blowers et al, who state the inclusion of such configuration: "there is illustrated schematically a machine vision system generally indicated at **20** generally of the type which can be supported by the method and system of the present invention" (Column 7, Lines 40-43). Blowers et al state further motivation in disclosing, "the hardware configuration is set by hardware manager **40** having an interface of FIG. **4** and coupled to a hardware engine **42** which, in turn, supplies COM drivers to the hardware of block **43**" (Column 8, Lines 41-44).

41. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach the control of multiple cameras in a machine vision system of one or more user interfaces.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Roswell whose telephone number is 703-305-5914. The examiner can normally be reached on 8:30 - 5:00 M-F.

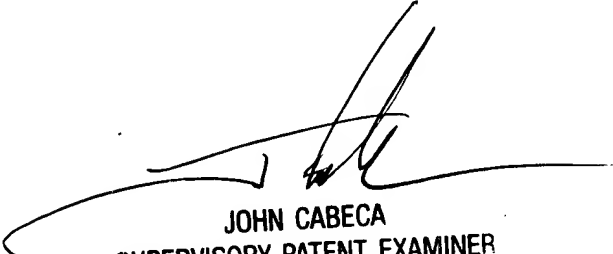
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on 703-308-3116. The fax phone number for the organization where this application or proceeding is assigned is (703)305-9731.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5484.

Michael Roswell
11/20/2003



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